JC17 Rec'd PCT/PTO 13 JUN 2005

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## In the Claims:

Please amend the claims as follows:

**Claims** 

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## What is claimed is:

- 1. (Currently amended) An abutment Abutment for a tooth implant with a root section or shaft (2) that can be anchored in a jaw preferably by being screwed in, and onto the coronal area of which the abutment (4, 4a, 8, 18) can be fixed, e.g. by an adhesive bond, characterized in that wherein
- the abutment (4, 4a, 8, 18) is part of at least one set of pre-fabricated abutments, which differ in form and each of which is adapted to the a natural form of a natural tooth.
- 2. (Currently amended) The abutment Abutment as claimed in claim 1, characterized by further comprising several sets with differing abutments each adapted to the natural form of a tooth, whereby the abutments (4, 4a, 8, 18) vary in size from set to set.
- 3. (Currently amended) The abutment Abutment as claimed in claim 1 or 2, wherein characterized in that the abutment (4, 8, 18) corresponds to the reduced natural form of a natural front tooth, a premolar or a molar.
- 4. (<u>Currently amended</u>) The abutment Abutment as claimed in one of the foregoing claims, characterized in that <u>claim 1</u>, wherein the abutment set has a reduced number of abutments (4, 4a, 8, 18) with different forms, for example only abutments that correspond to the reduced natural form of a natural front tooth, a premolar or a molar.
- 5. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the abutments (4, 4a, 8, 18) in comparison with the natural tooth form are smaller by a dimension that is less than or equal to the wall thickness of a further structure to be provided on the abutment.
- 6. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein an outer contour of the respective abutment (4, 8) as compared with the an outer contour of the form a natural tooth is reduced by approximately 0.1 to 2.5 mm.

- 7. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment is made of aluminum oxide, zircon oxide, metal or a high-strength material.
- 8. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 7, wherein the abutment made of aluminum oxide has a wall thickness of at least 0.2 to 1.2 mm.
- 9. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 7, wherein abutment made of zircon oxide has a wall thickness of at least 0.15 to 0.8 mm.
- 10. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein a the coronal area of the implant shaft (2) consists of a bar or a bar-like projection (3) and that the abutment (4, 4a, 8, 18) has a recess (6) adapted to the form of the bar.
- 11. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment (4, 4a, 8, 18) is pre-treated on a surface to be connected with the an implant shaft (2) for optimization of the adhesive bond, in particular by means of mechanical roughening, etching and/or coating with an active layer reacting with the a bonding agent of the adhesive bond.
- 12. (Currently amended) The abutment Abutment as claimed in claim 11, characterized by further comprising a protective layer for covering the surface-treated layer.
- 13. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment is designed to be able to be etched on its surface for the an adhesive bond with the implant shaft, e.g. it consists of an etchable surface layer, e.g. is composed of silicon oxide.

- 14. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment, e.g. the prepared abutment, is the a basis for an additional structure.
- 15. (Currently amended) The abutment Abutment as claimed in claim 14, characterized in that wherein the abutment (4), e.g. the prepared abutment (4), is the basis for a crown with a shell forming the anouter surface of the crown burned, cast or sintered onto the abutment, for example burned on ceramic.
- 16. (Currently amended) The abutment Abutment as claimed in claim 14, characterized in that wherein the abutment, e.g. the prepared abutment, is the basis for a separately manufactured structure, for example for a separately manufactured the structure is a shell, or crown, for a bridge element, for a telescope or bar.
- 17. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment (8) is manufactured as a compensating cap with a truncated cone-shaped coronal area, the <u>a</u> shell surface (9) of which is asymmetric to a longitudinal implant axis (L) such that the shell surface has a different conical shape at two areas (9.1, 9.2) opposing the longitudinal implant axis.
- 18. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment (4, 4a, 8, 18) is a cap.
- 19. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein an axis of the abutment forms an angle with the longitudinal axis of the implant or of the root shaft (2, 2a), for example an , the angle up to approximately 20°.
- 20. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein a basis or stage of the abutment has a garland-shaped course and that the a lowest point of this course is buccal-labial and lingual-palatinal.

- 21. (Currently amended) The abutment Abutment as claimed in claim 20, characterized in that wherein the buccal-labial distance between the lowest point of the garland-shaped course to the tip of the abutment is different from the corresponding palatinal-lingual distance.
- 22. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein on the an outer surface of the abutment and/or on the outer surface of the coronal part of the shaft (2), there is a protective layer or protective sleeve covering these surfaces.
- 23. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment and/or shaft is provided with growth factors and/or substances to accelerate healing, for example the growth factors are bacteriocidal or bacteriostatic agents, or medications.
- 24. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that cclaim 1, wherein the individual anatomical structural form corresponds to an even reduction around the natural tooth (Fig. 20).
- 25. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein an outer form of the abutment is stylized and has straight surfaces and rounded edges and is schematically equivalent, with a reduction to a greater or lesser extent, to the tooth to be replaced (Fig. 21).
- 26. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein there is an absolute or relative height difference between the premolar and molar cusps and the <u>a</u> garland-shaped base (12.3) and stage (12) in the <u>an</u> upper jaw/lower jaw.
- 27. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein a form of the abutment in top view, in the an area of the passage through the soft tissue and in the area of the base (12.3) is characterized similar to the corresponding natural teeth, as follows:

Upper jaw no. 1: nearly same diameter m/d and b/p, round or square toward distal somewhat convex;

Upper jaw no. 2: as upper jaw no. 1, but somewhat more oval, in labio-palatinal direction;

Upper jaw no. 3: spheroidal oval with distal convexity;

Upper jaw no. 4: double oval / figure 8 eight form;

Upper jaw no. 5: oblong oval;

Lower jaw no. 1 and 2: ditto, triangular with reduction toward palatinal;

Lower jaw no. 3: similar, somewhat more round;

Lower jaw no. 4 and 5: oblong oval, somewhat triangular course toward buccal;

Lower jaw no. 6 / 7 / 8 rectangular or square with more or less rounded edges.

- 28. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein an outer form of the base is straight, convex, concave, parallel, diverging, converging to the soft tissue.
- 29. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that the claim 1, wherein an outer abutment surface in the area of the body corresponds to the typical curvature characteristics of teeth.
- 30. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the abutment is provided with an elastic or flexible anatomically individual or stylized composite layer or tooth-colored layer, enabling the provisional replacement of a crown that can be burdened immediately.
- 31. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein there is a distance of 0.2 to 6 mm from the <u>a</u> garland-shaped stage and the <u>a</u> garland-shaped base bond surface (2.3) to the implant.
- 32. (Currently amended) The abutment Abutment as claimed in one of the foregoing claims, characterized in that claim 1, wherein the cap is part of a cap set, which includes at least the following caps:

Tooth	Cap length	Mesio-distal diameter	Labio-buccal-oral
		at stage 12	diameter at stage 12
Upper jaw			
Middle incisor	10.5 - 5.5	7.0 - 4.0	6.0 - 3.0
Side incisor	9.5 - 4.5	5 - 2.0	5.0 - 2.0
Canine	10.0 - 5.0	5.5 - 2.5	7.0 - 4
First premolar	8.5 - 3.5	5.0 - 2.0	8.0 - 4.0
Second premolar	8.5 - 3.5	5.0 - 2.0	8.0 - 4.0
First molar	7.5 - 2.5	8.0 - 5.0	10.0 - 6.0
Second molar	7.0 - 2.5	7.0 - 4.0	10.0 - 4.0
Third molar	6.5 - 2.5	6.5 - 2.5	9.5 - 4.0
Lower jaw			
Middle incisor	9.0 - 4.0	3.5 - 2.0	5.3 - 2.3
Side incisor	9.5 - 4.5	4.0 - 2.0	5.8 - 2.8
Canine	11.0 - 6.0	5.5 - 2.5	7.0 - 4.0
First premolar	8.0 - 3.5	5.0 - 2.0	6.5 - 3.5
Second premolar	8.5 - 3.0	5.0 - 2.0	7.5 - 4.0
First molar	7.0 - 2.5	9.0 - 6.0	9.0 - 5.0
Second molar	7.0 - 2.0	8.0 - 5.0	9.0 - 5.0
Third molar	7.0 - 2.5	7.5 - 4.5	9.0 - 5.0

33. (Currently amended) A tooth Tooth implant with a root section or shaft (2) that can be anchored in a jaw preferably by being screwed in and with an abutment (4, 4a, 8, 18) that can be fixed by an adhesive bond on a coronal area of the shaft (2), characterized in that wherein the abutment (4, 4a, 8, 18) is embodied according to one of the foregoing claims by claim 1.

- 34. (Currently amended) A process Process for manufacturing a dental prosthesis using an abutment according to one of the foregoing claims, characterized in that claim 1, wherein an abutment (4) corresponding to the form of the tooth to be reconstructed is selected from the abutment set and that this abutment (4) is then prepared and provided with the a further structure (5, 7).
- 35. (Currently amended) The process Process as claimed in claim 34, characterized in that a shell (5) forming the outer surface of the crown is applied, e.g. burned, to the prepared abutment (4) forming the base of a crown.
- 36. (Currently amended) The process Process as claimed in one of the foregoing claims, characterized in that claim 34, further comprising an additional, separately manufactured structure (7) is fixed to the abutment (4) after preparation.
- 37. (<u>Currently amended</u>) The process Process as claimed in one of the foregoing claims, characterized in that <u>claim 34</u>, wherein the abutment is manufactured individually corresponding to the <u>a</u> tooth to be reconstructed.